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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,322	09/22/2003	Edward J. Cheal	APK-001.02	2321

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FOLEY HOAG, LLP  
PATENT GROUP, WORLD TRADE CENTER WEST  
155 SEAPORT BLVD  
BOSTON, MA 02110

EXAMINER
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STEWART, ALVIN J

ART UNIT	PAPER NUMBER
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3738

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/605,322	CHEAL ET AL.	
	Examiner	Art Unit	
	Alvin J. Stewart	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luman US Patent 5,002,578 in view of Mortensen US Patent 4,212,087.

Luman discloses a joint prosthesis comprising a head member (see col. 5, lines 66-68), a neck member (14), a base (50), a plug (52), a spigot (40) having a first taper cylinder (44) and second cylinder (42), a stem member (12), a proximal end (20), a stem bore (30) having a friction-tight-press-fit connection with the first taper cylinder (see Figs. 1-3) and a shaft (18). However, Luman does not disclose a complete first cylinder having a friction-tight press-fit with a complete first cylindrical portion.

Mortensen teaches a prosthetic device joining two element structures together by a press-fit (see Fig. 2 and col. 2, lines 16-20). The two structures are connected each other by a simple cylindrical press-fit connection (well known in the art). Cylindrical structure 16 is connected to cylindrical structure 21 by a press-fit connection, as shown in Figure 2, for the purpose of creating a permanently fixed connection between the two of the elements.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the substantially first cylinder of the Luman reference with the cylindrical press-fit connection of the Mortensen reference in order to permanently engage and fix the spigot to the bore of the stem member.

Claims 3, 4, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luman US Patent 5,002,578 in view of Mortensen US Patent 4,212,087 and further in view of Murphy US Patent 5,653,764.

Luman as modify by Mortensen discloses the invention substantially as claimed. However, Luman does not disclose a plurality of receptacles on the neck member to receive a key protruding from the proximal end.

Murphy teaches a joint implant comprising a modular member divided in two parts the implant is selectable to different orientations. A first member has a plurality of keys and a second member has a plurality of apertures so the implant can have different angular configurations (see Figs. 8 & 9; and col. 6, lines 52-60) for the purpose of preventing any relative angular motion between the stem portion and the neck portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Luman reference with the Murphy selectable angular orientation implant in order to prevent any relative angular motion between the stem portion and the neck portion.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luman US Patent 5,002,578 in view of Mortensen US Patent 4,212,087 and further in view of Jacobs et al US Patent 5,080,674.

Luman as modify by Mortensen discloses the invention substantially as claimed. However, Luman does not disclose a protrusion fixedly located in the stem bore and an axially oriented slot.

Jacobs et al discloses a protrusion (18) on a bore (14) having a spigot (36) with an axially oriented slot (see Figs. 7-9) for the purpose of resisting the subsequent separation of the post from the bore.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Luman reference with the Jacobs et al reference in order to resist the subsequent separation of the post from the bore.

Claims 7, 8, 19 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luman US Patent 5,002,578 in view of Mortensen US Patent 4,212,087 and further in view of McTighe et al US Patent 5,653,765.

Luman as modify by Mortensen discloses the invention substantially as claimed. However, Luman does not disclose a plurality of tines defined by slots and the slots form an acute angle.

McTighe et al teaches a modular implant comprising a plurality of tines defined by slots (25 & 27) for the purpose of providing flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain (see col. 5, lines 60-67 and col. 6, lines 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Luman reference with the McTighe et al reference in order to provide flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the tines and slot of the McTighe et al by having at least three tines defined by slots in the shaft, the slots forming an acute angle because

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Applicant has not disclosed that the three slots forming an acute angle provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the four 90° angle slots shown in Figure 2 because the McTighe et al reference will perform equally well with the four elongated slots as shown in Figure 2 because it will provide the same intended use as the applicants' invention (e.g. it will provide flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain).

Therefore, it would have been an obvious matter of design choice to modify the McTighe et al reference to obtain the invention as specified in claim 19.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 703-305-0277. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*A. Stewart*

**ALVIN J. STEWART**  
**PRIMARY EXAMINER**

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August 12, 2005